RCRA Enforcement Inspection

Bayonne Barrel and Drum Newark, New Jersey

NJD009871401

June 2, 1988

Participating Personnel:

U.S. Environmental Protection Agency

- M. Ferriola, Environmental Scientist
- R. Coleates, Environmental Scientist
- R. Morrell, Geologist
- D. Dugan, Environmental Scientist
- J. Wilk, Environmental Scientist

Bayonne Barrel and Drum

Frank Langella, Company owner

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RCRA ENFORCEMENT INSPECTION

Objective

A RCRA sampling inspection was conducted at Bayonne Barrel and Drum (BBD) on June 2, 1988, by members of EPA's Region II, Environmental Services Division. This investigation was requested by the Hazardous Waste Compliance Branch (HWCB) in New York. The scope of this inspection was to determine if BBD is actively storing hazardous wastes on site and establish present site conditions as compared to the original sampling investigation performed by EPA in 1984. A general site map (Figure 1) is attached which illustrates the approximate sampling locations.

Survey Participants

Frank Langella, Company owner - Bayonne Barrel and Drum

Tom Colligan, Operations Manager - Interwaste Services Company (ISCO) James Wilson, Field Engineer - ISCO Andy Kondracki, Environmental Controls Manager - ISCO Mike Young, ISCO

Mike Ferriola, Environmental Scientist - U.S. EPA
Richard Coleates, Environmental Scientist - U.S. EPA
Robert Morrell, Geologist - U.S. EPA
David Dugan, Environmental Scientist - U.S. EPA
John Wilk, Environmental Scientist - U.S. EPA

* Personnel from Interwaste Services Co. (ISCO) were contracted by BBD to collect split samples and observe EPA sampling activities.

Discussion

On June 2, 1988, a RCRA sampling inspection was conducted at Bayonne Barrel and Drum, located at 150 Raymond Boulevard in Newark, New Jersey. Two previous sampling inspections were attempted. However, due to an access denial on May 12 and inclement weather on May 19, those inspections were not completed. Access was denied on May 12 by BBD's attorney, Damon Sadita, after being on site for approximately one hour and actively engaged in sampling. EPA was informed by their attorney that investigative personnel (EPA) should not be on site. This arrangement was made as per an agreement with the Department of Justice in Washington, D.C., since the site was already in litigation. A second sampling visit was scheduled, after consent by EPA and BBD attorneys, exactly one week later on May 19, 1988. Due to excessive rain the previous 36 hours, sampling had to be postponed once again.

Site Description

Currently, BBD is an inactive drum reconditioning facility which has filed for bankruptcy under Chapter 11 and is only staffed by a few maintenance/ security people. The plant has undergone some surficial cleaning/house-keeping which includes the arrangement of empty drums in orderly rows, grading of empty lots on the south side of the buildings, and removal of most equipment from the building interiors. In addition, the ash pile on the southwest corner of the property has been covered with a sheet of clear plastic. During EPA's initial attempt to sample, the ash pile was found uncovered. However, on a second sampling attempt, the contractor representing BBD had covered the ash pile with several rolls of clear sheet plastic. During the third and actual sampling inspection, the pile remained covered.

Even though the plant "appears aesthetically cleaner", there remain a few areas which appear grossly contaminated. The drum and ash storage room contains a large ash pile from incineration activities. Also, approximately 150 drums remain which contain ash or aqueous materials. A few drums had holes punched in their sides which allowed the contents to stain the surrounding floor space. A couple of drums had been inverted to prevent their contents from leaking and others were severely dented and/or crushed. Most drums contained ash which looked similar in nature to the ash pile in the middle of the room. See the attached photographs for illustrations. Approximate building locations and sampling sites are depicted in Figure 1. In addition, an ash pile remains in the courtyard between the incinerator and the furnace room building. The ash residue was multicolored, as shown in the attached photographs.

Sampling locations and methodology

In order to fulfill the objectives of this investigation, a total of seven predetermined locations were selected. The sampling network and rationale was based upon a previous sampling inspection by EPA (2/84) and new locations proposed by the HWCB during a presurvey walk-through conducted on April 15, 1988. Based upon this information, the following points were selected:

- 1 Furnace room building
- 2 Courtyard area
- 3 Drum and ash storage room (near incinerator)
- 4 Waste ash pile (near rows of drums)
- 5 Oil separator trench
- 6 Pump House (near oil separator trench)
- 7 Underground tank (near toluene pump)

Approximate sample locations are depicted in Figure 1 which correspond to the sample numbering system above. The analyses requested included EP Toxicity (metals only), volatile organic analysis (VOA), non-volatile organic analysis (NVOA), PCB's, and also pH for aqueous samples. In addition, ignitability was analyzed on the drum sample containing an aqueous solution (sample # 112213).

The following is a list of sample identification numbers, corresponding sample locations, and descriptions of collection techniques:

Sample #112201 - This sample was collected from the floor of the furnace room building as depicted in picture #10. The ash sample was collected at random from several locations using a dedicated polypropylene scoop. The sample was then mixed in a stainless steel tray to form a composite sample, which was subsequently split for EPA personnel and the BBD contractor. The stainless steel tray was lined with new "Whatman Benchcoat" paper each time a sample for ash was collected to prevent cross contamination among different sampling locations.

Sample #112202 - Courtyard area ash sample collected at random using the same techniques as listed in sample #112201. Photographs #5 - 9 illustrate the sample location and collection techniques. Make special notice of the various colors encountered in the ash pile and sample collected.

Sample #112203 - Drum and Ash storage room ash sample collected in a manner identical to that listed in sample #112201. Level B personal protective equipment (PPE) was worn in this area due to the presence of hazardous organic vapors, as indicated by air monitoring equipment. Pictures #15-16 illustrate sampling technique and level of protective equipment required.

Sample #112204 - This sample number represents the "WEST" half of the waste ash pile near the drum storage area. An imaginary line was drawn through the ash pile to delineate an "EAST" and "WEST" half, for the purpose of sampling only. Figure 1 shows the relative location of the ash pile and illustrates the approximate boundary drawn to delineate the two halves. Photographs #17 and 19 illustrate the entire waste ash pile and sample collection in the "WEST" half, respectively. Level C PPE was worn during sample collection and compositing. Since the ash pile was covered with polyethylene plastic sheeting, holes were cut at random to enable sample collection. Samples were collected using a dedicated polypropylene scoop and throughly mixed in a stainless steel tray to form a composite sample.

Sample #112205 - Aqueous samples were collected from the oil separator trench using an I-Chem Series 300, one quart glass jar attached to an aluminum rod and clamp. Samples were poured directly from the glass jar into the respective sample containers.

Sample #112206 - Aqueous samples were collected from the pump house using the same techniques mentioned in sample #112205. Picture #1 illustrates the pump house and rod/clamp used for sample collection. A duplicate sample, #112211, was also collected at this location.

Sample #112207 - Aqueous samples were collected from an underground tank near the toluene pump. The sample was collected by taping an I-Chem Series 300 glass jar to an aluminum rod. The sample was collected in this manner due to the size of the access standpipe. In addition, the aluminum rod was shaped to fit the angled opening of the tank. See picture #3, which illustrates sampling of the underground tank.

Sample #112208 - In addition to collecting ash samples from the courtyard, aqueous samples were also collected as depicted in photgraph #4. Ponded water samples were collected in a low lying area adjacent to the courtyard ash pile and incinerator. Sample collection technique was by direct filling an I-Chem Series 300 glass jar and pouring into the appropriate sample containers.

Sample #112212 - This sample number represents the "EAST" half of the waste ash pile near the drum storage area. Photograph #18 depicts sampling the "EAST" half of the ash pile while wearing Level C PPE. Sample collection techniques were the same as in sample #112204. A series of random grab samples were collected using a dedicated polypropylene scoop and then composited in a stainless steel tray. After the sample was throughly mixed, the respective sample containers were filled.

Sample #112213 - An aqueous sample was collected from a "RED" drum in the drum and ash storage room as depicted in photographs #11 - 12. Level B PPE was worn due to the presence of high concentrations of unknown organic contaminants. The drum was sampled using a precleaned, dedicated teflon bailer. Pictures #13 - 14 indicate the particular red drum which was sampled and other drums in the immediate area. Note the condition of the drums in all four photographs. Most of the drums contained ash which looked similar in nature to the ash pile in the center of the room. However, some of the drums contained liquids of unknown content. Many of the containers were in very poor condition, some with holes and a few inverted to prevent their contents from leaking onto the floor.

All samples were collected in accordance with established EPA, Region II protocols. Standard EPA Chain of Custody procedures were employed throughout this inspection and a receipt for samples was signed by the facility representative (ISCO), as required under section 3007 (a) of RCRA. All samples collected by EPA were split with ISCO during this investigation (containers for BBD samples were provided by ISCO). EPA samples were analyzed at the Region II laboratory in Edison, New Jersey.

Results of Analyses

The results obtained from the samples collected during this investigation are presented in the following tables: Volatile Organics GC/MS scan (Table 1), Non-volatile Organics GC/MS scan (Table 2), and EP TOX Metals (Table 3).

Table 1 presents the volatile organic compounds and concentrations that were detected. The results indicate the presence of volatile organics in all samples collected. Exceptionally high concentrations of volatile organic compounds were found in samples #112212 and #112213. Concentrations ranged from 490 ug/l of trichloroethylene to 10,000,000 ug/l of xylene in those samples.

Table 2 presents the non-volatile organics/PCB compounds and concentrations that were detected. Very high concentrations of non-volatile organics were found in the ash samples, as presented in the attached tables, pages 2a - 2b. In addition, PCB's were found in sample #112212 at 115,400 and 293,970 ug/l for Aroclor 1248 and 1254, respectively. High concentrations of non-volatile organics were also found in the drum sample, #112213.

Table 3 presents the results of analyses for the hazardous waste characteristic of EP Toxicity (metals). The maximum concentration allowed for cadmium (1.0 mg/1) was exceeded in three of the samples collected (#112201, 112203, and 112204). All other EP Toxicity metals contaminants were below the maximum limit allowed, as presented in Table 3.

Aqueous samples were analyzed for pH, and in addition, ignitability analysis was performed on the drum sample. Results of these analyses show that none of the samples analyzed met the criteria of corrosivity or ignitability, as per 261.21 and 261.22. Results are presented below:

Characteristic of Corrosivity

Sample #	ph (SU)
112205	7.37
112206	6.59
112207	6.28
112208	6.70
112213 (drum)	10.9

Characteristic of Ignitability

Sample #	Flash point
112213	> 145°F

Findings and Conclusions

Based upon the sampling results of this investigation and a visual inspection of the site, Bayonne Barrel and Drum is in violation of existing RCRA and TSCA regulations. Analytical results indicate that the waste ash pile, drum and ash storage room ash, and furnace room ash are a RCRA hazardous waste in accordance with 40 CFR Part 261.24. The ash exhibits the characteristic of EP Toxicity for cadmium (D006).

Results of PCB analyses show concentrations for Aroclor 1248 and 1252 to be 115 and 293 mg/l, respectively. This is a violation of TSCA regulations 40 CFR Part 761.60.

The waste ash pile was still in violation of 40 CFR Part 265, Subpart L (waste piles) during the initial site visit on May 12, 1988. The pile was subsequently covered by sheet plastic on May 19, 1988. However, a containment system to prevent and collect run-off or eliminate a discharge to groundwater does not exist.

The drum and ash storage room contained many drums, approximately 100-150, which were not marked as a hazardous waste and were apparently stored in excess of 90 days.

In addition, numerous organic compounds were found throughout the site in varying concentrations. All results are listed in Tables 1-3.

TABLE 1 BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY VOLATILE ORGANICS GC/MS SCAN

JUNE 2, 1988

Ash samples

#112201	#112202	#112203	#112204	#112212
			#112204	1112212
		28 M	 	
			 	- • • • • • • • • • • • • • • • • • •
96 M		340 M		64 M
	-			- 04 II
				680 M
	-		· · · · · · · · · · · · · · · · · · ·	- 000 11
				
	28 J	60 M		24 M
			 	
				
			1	-
	1			•
140 M	570	1500	100 M	5200
				5200
				
			†··	
				
	1		 	
	80 M	1200	140 M	1300
310 M	1300			12,000
82 M				490
			 	730
	1000			4600
	140 M	96 M 28 J 140 M 570 80 M 310 M 1300 82 M 46 M	28 M 540 M 96 M 340 M 28 J 60 M 140 M 570 1500 1500 80 M 1200 310 M 1300 2700 82 M 46 M 550	28 M 540 M 96 M 28 J 60 M 140 M 570 1500 100 M 80 M 1200 140 M 310 M 1300 2700 200 M

All concentrations in ug/kg.

Styrene

page la

2500

M = above the detection limit, but below the level of quantification

J = estimated value

TABLE 1 BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY VOLATILE ORGANICS GC/MS SCAN JUNE 2, 1988

page 1b

Aqueous samples

	ľ	1	Dup.		1 .	1
PARAMETER/SAMPLE#	#112205	112206	112211	#112207	#112208	#112213
Benzene			4.4			92,000
Carbon Tetrachloride						
Chlorobenzene		9.4	7.3			78,000
1,2-dichloroethane						
1,1,1-trichloroethane		5.2	4.3			
l,l-dichloroethane		11	8.8			
1,1,2-trichloroethane		1.3M	1.0M			
1,1,2,2-tetrachloroethane						
Chloroethane						
Chloroform	2.6 M	1.6	5.5	10		
1,1-dichloroethylene						
1,2-Trans dichloroethylene	3.7 M	55	41	2.3		
1,2-dichloropropane						
1,3-dichloropropylene						
Ethylbenzene		130	110	1.8 M	14 M	1,200,000
Methylene chloride						
Methyl chloride						
Methyl bromide				-		
Bromoform						
Dichlorobromomethane				 		
Chlorodibromomethane.						
Tetrachloroethylene		2.2M	1.6M			62,000
Toluene	2.6 M	660	540	0.4 M	600 J	2,400,000 J
Trichloroethylene		4.5	3.4	0.5 M		
Vinyl chloride		18	12			
Xylene	5.0 M	140	220	4.1 J	60 J	10,000,000
4-methyl-2-pentanone		21	17			
Styrene			38			

All concentrations in ug/l.

M = above the detection limit, but below the level of quantification

J = estimated value

Ash samples

		1	1 1	• 1	
PARAMETER/SAMPLE #	112201	112202	112203	112204	112212
2-chlorophenol				and a ligarity of the second o	
2-nitrophenol			. [
phenol		2350 J	104,400 J		1
2,4-dimethylphenol			2,350 M		•
2,4-dichlorophenol					
2,4,6-trichlorophenol					
p-chloro-m-cresol					
2,4-dinitrophenol					
4,6-dinitro-o-cresol					
pentachlorophenol					•
4-nitrophenol					
1,3-dichlorobenzene		·			
1,4-dichlorobenzene				140 M	
1,2-dichlorobenzene		330 M	5,780 M	400 M	
hexachloroethane					
hexachlorobutadiene					
1,2,4-trichlorobenzene	490 M	620 M	49,200 J	2820 J	
napthalene	2600 J	9910 J	15,050 J	6430 J	1210 M
bis(2-chloroethyl) ether					
bis(2-chloroethoxy) methane			5,080 M		
isophorone		6730 J	5,060 M	1060 M	-3
nitrobenzene					
acenaphthylene	<u> </u>	1250 M	700 M	2850 M	
acenapthene		130 M	3,700 M	450 M	
fluorene		1520 M	7,375 J	490 M	
hexachlorobenzene					
phenanthrene	1140 M	1880 J	37,380 J	3080 M	220 M
anthracene	230 M	1850 M	3,550 M	1240 M	
fluoranthene	650 M	2490 M		1970 J	140 M
aniline	160 M				
2-methyl napthalene	1090 M	3370 J	17,180 J	4490 J	460 M
2-methyl phenol			9,600 J	1	
4-methyl phenol		,	20,000 J	1140 J	
biphenyl			20,000 J		
dimethyl diphenyl urea			37,200 J	7200 J	
n-nitrosodiphenylamine				770 M	180 M
3,3-dichlorobenzidene				520 M	
benzoic acid				5710 J	
hexane diisocyanate	1870 (- 1. 1. 1.), 2.1. (- 1. 1. 1			12,100 J	

All concentrations in ug/kg.

M = above the detection limit, but below the level of quantification

J = estimated value

TABLE 2 BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY NON-VOLATILE ORGANIC GC/MS SCAN JUNE 2, 1988

Ash samples

PARAMETER/SAMPLE# #112201 #112202 #112203 #112204 #112212 dimethyl phthalate		Ι .	1		t	1
diethyl phthalate 380 M 890 M 102,930 J 1100 M di-n-butyl phthalate 5200 J 35,920 J 90,150 J 6830 J , 1980 M butyl benzyl phthalate 2500 M 8,070 J 67,530 J 1290 M 1780 M di-n-octyl phthalate 340 M 5850 M 5850 M 50 M bis(2-ethylhexyl) phthalate 51,060 J 259,230 J 39,960 J 9970 M pyrene 660 M 480 M 7500 J 3610 J 200 M chrysene 160 M 630 M 1950 M 2070 M 1,20 M 1,2-benzanthracene 110 M 400 M 1055 M 1850 M 1850 M 4-chlorophenyl phenyl ether 4-chlorophenyl phen	PARAMETER/SAMPLE#	#112201	#112202	#112203	#112204	#112212
di-n-butyl phthlate 5200 J 35,920 J 90,150 J 6830 J , 1980 M butyl benzyl phthalate 2500 M 8,070 J 67,530 J 1290 M 1780 M di-n-octyl phthalate 340 M 5850 M 550 M 50 M bis(2-ethylhexyl) phthalate 51,060 J 259,230 J 39,960 J 200 M pyrene 660 M 480 M 7500 J 3610 J 200 M chrysene 160 M 630 M 1950 M 2070 M 1,2-benzanthracene 1,2-benzanthracene 110 M 400 M 1055 M 1850 M 1850 M 4-chlorophenyl phenyl ether 56,000 J 1850 M 1850 M 1850 M 1850 M 2-methyl alcohol 710 M 24,730 J 2570 J	dimethyl phthalate		230 M	1750 M	170 M	
butyl benzyl phthalate 2500 M 8,070 J 67,530 J 1290 M 1780 M di-n-octyl phthalate 340 M 5850 M 50 M bis(2-ethylhexyl) phthalate 51,060 J 259,230 J 39,960 J pyrene 660 M 480 M 7500 J 3610 J 200 M chrysene 160 M 630 M 1950 M 2070 M 11.7-benzona 110 M 400 M 1055 M 1850 M 4-chlorophenyl phenyl ether 110 M 400 M 1055 M 1850 M 4-chlorophenyl phenyl ether 2450 M 1.12-benzoperylene 2450 M 24,730 J 2570 J 250 M 250 M 3450 M 360 M 360 M 2570 J 2-methyl alcohol 710 M 24,730 J 2570 J 2-methyl alcohol 710 M 24,730 J 2570 J 2-methyl alcohol 340,000 J 9 1500 J 360 M 1500 J 110 M 3,400 J 10 M 1,2-diphyly		380 M	890 M	102,930 J	1100 M	
di-n-octyl phthalate 340 M 5850 M 50 M bis(2-ethylhexyl) phthalate 51,060 J 259,230 J 39,960 J pyrene 660 M 480 M 7500 J 3610 J 200 M chrysene 160 M 630 M 1950 M 2070 M color M chrysene 160 M 630 M 1950 M 2070 M color M <t< td=""><td></td><td>5200 J</td><td>35,920 J</td><td>90,150 J</td><td>6830 J</td><td>, 1980 M</td></t<>		5200 J	35,920 J	90,150 J	6830 J	, 1980 M
Dis(2-ethylhexyl) Phthalate S1,060 J 259,230 J 39,960 J Pyrene 660 M 480 M 7500 J 3610 J 200 M 2	butyl benzyl phthalate	2500 M	8,070 J	67,530 J	1290 M	1780 M
pyrene 660 M 480 M 7500 J 3610 J 200 M chrysene 160 M 630 M 1950 M 2070 M 1,2-benzanthracene 110 M 400 M 1055 M 1850 M 4-chlorophenyl phenyl ether		340 M		5850 M		50 M
chrysene 160 M 630 M 1950 M 2070 M 1,2-benzanthracene 110 M 400 M 1055 M 1850 M 4-chlorophenyl phenyl ether benzo(a) pyrene 2450 M 1,12-benzoperylene benzyl alcohol 710 M 24,730 J 2570 J 2-methyl alcohol 250 M 750 M 3450 M 360 M toluene diisocyanate 340,000 J 3450 M 360 M toluene diisocyanate 56,000 J 1500 J 1500 J phthalic anhydride 56,000 J 1500 J 1500 J naphthalene isocyanate 67,000 J 2 120 M 1,2-diphenylhydrazine 1560 M 110 M 110 M 3,4-benzofluoranthene 280 M 2950 M 110 M 11,12-benzofluoranthene 33,000 J 4590 J 190 J phenol,2,4-bis(1,1-dimethyl) 4590 J 4590 J 190 J plangene 12,500 J 123,000 J 5700 J 600 J pcB-1016 PcB-1016 PcB-1221 700 J 700 J	bis(2-ethylhexyl) phthalate		51,060 J	259,230 J	39,960 J	
1,2-benzanthracene	pyrene	660 M	480 M	7500 J	3610 J	200 M
Variable of the color of the		160 M	630 M	1950 M	2070 M	
Denzo(a) pyrene		110 M	400 M	1055 M	1850 M	
1,12-benzoperylene						
Denzyl alcohol 710 M 24,730 J 2570 J			2450 M			
2-methyl alcohol 250 M 750 M 3450 M 360 M 1500 J 1500 M 110 M 1,2-diphenylhydrazine 1560 M 110 M 1,2-diphenylhydrazine 280 M 2950 M 110 M 11,12-benzofluoranthene 11,12-benzofluoranthene 11,12-benzofluoranthene 11,12-benzofluoranthene 12,500 J 1500 J						
dibenzofuran 250 M 750 M 3450 M 360 M toluene diisocyanate 340,000 J 1500 J phthalic anhydride 56,000 J 1500 J naphthalene isocyanate 67,000 J 2,6 dinitrotoluene 2,4-dinitrotoluene 120 M 1,2-diphenylhydrazine 1560 M 110 M 3,4-benzofluoranthene 280 M 2950 M 11,12-benzofluoranthene 33,000 J 10 M dihydrotrimethylphenyl ind. 33,000 J 33,000 J phenol,2,4-bis(1,1-dimethyl) 4590 J 4590 J ylangene 123,000 J 5700 J homosolate 123,000 J 5700 J cholestanol PCB-1232 PCB-1232 PCB-1242 PCB-1242 PCB-1242 PCB-1248 293,970 PCB-1254 115,400			710 M	24,730 J	2570 J	
toluene diisocyanate	2-methyl alcohol					
phthalic anhydride 56,000 J 1500 J naphthalene isocyanate 67,000 J 120 M 2,6 dinitrotoluene 120 M 120 M 1,2-diphenylhydrazine 1560 M 110 M 3,4-benzofluoranthene 280 M 2950 M 11,12-benzofluoranthene 33,000 J dihydrotrimethylphenyl ind. 33,000 J phenol,2,4-bis(1,1-dimethyl) 4590 J ylangene 123,000 J homosolate 123,000 J cholestanol PCB-1016 PCB-1221 PCB-1232 PCB-1232 PCB-1242 PCB-1248 293,970 PCB-1254 115,400	dibenzofuran	250 M	750 M	3450 M	360 M	
naphthalene isocyanate 67,000 J 2,6 dinitrotoluene 120 M 1,2-diphenylhydrazine 1560 M 110 M 3,4-benzofluoranthene 280 M 2950 M 11,12-benzofluoranthene 33,000 J 33,000 J dihydrotrimethylphenyl ind. 33,000 J 4590 J phenol,2,4-bis(1,1-dimethyl) 4590 J 4590 J ylangene 12,500 J 5700 J homosolate 123,000 J 5700 J cholestanol PCB-1221 PCB-1232 PCB-1232 PCB-1242 293,970 PCB-1248 293,970 PCB-1254 115,400	toluene diisocyanate		340,000 J			
2,6 dinitrotoluene 120 M 1,2-diphenylhydrazine 1560 M 110 M 3,4-benzofluoranthene 280 M 2950 M 110 M 11,12-benzofluoranthene 33,000 J 11,12-benzofluoranthene 12,500 J 12,500 J <td>phthalic anhydride</td> <td></td> <td>56,000 J</td> <td></td> <td></td> <td>1500 J</td>	phthalic anhydride		56,000 J			1500 J
2,4-dinitrotoluene 120 M 1,2-diphenylhydrazine 1560 M 110 M 3,4-benzofluoranthene 280 M 2950 M 11,12-benzofluoranthene 33,000 J dihydrotrimethylphenyl ind. 33,000 J phenol,2,4-bis(1,1-dimethyl) 4590 J ylangene 12,500 J homosolate 123,000 J 5700 J cholestanol PCB-1016 PCB-1221 PCB-1232 PCB-1242 293,970 PCB-1254 115,400	naphthalene isocyanate		67,000 J			
1,2-diphenylhydrazine 1560 M 110 M 3,4-benzofluoranthene 280 M 2950 M 11,12-benzofluoranthene 33,000 J dihydrotrimethylphenyl ind. 33,000 J phenol,2,4-bis(1,1-dimethyl) 4590 J ylangene 12,500 J homosolate 123,000 J 5700 J cholestanol PCB-1016 PCB-1221 PCB-1232 PCB-1242 293,970 PCB-1248 293,970 PCB-1254 115,400	2,6 dinitrotoluene					
3,4-benzofluoranthene 280 M 2950 M 2950 M 11,12-benzofluoranthene 33,000 J 2500 M 2950					120 M	
11,12-benzofluoranthene 33,000 J dihydrotrimethylphenyl ind. 33,000 J phenol,2,4-bis(1,1-dimethyl) 4590 J ylangene 12,500 J homosolate 123,000 J 5700 J cholestanol PCB-1016 PCB-1221 PCB-1232 PCB-1242 293,970 PCB-1254 115,400			1560 M			110 M
dihydrotrimethylphenyl ind. 33,000 J phenol,2,4-bis(1,1-dimethyl) 4590 J ylangene 12,500 J homosolate 123,000 J 5700 J cholestanol PCB-1016 PCB-1221 PCB-1232 PCB-1242 293,970 PCB-1254 115,400	3,4-benzofluoranthene	280 M	2950 M			
phenol,2,4-bis(1,1-dimethyl) 4590 J ylangene 12,500 J homosolate 123,000 J cholestanol 5700 J PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 293,970 PCB-1254 115,400	11,12-benzofluoranthene					
phenol,2,4-bis(1,1-dimethyl) 4590 J ylangene 12,500 J homosolate 123,000 J cholestanol 5700 J PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 293,970 PCB-1254 115,400	dihydrotrimethylphenyl ind.				33,000 J	1
homosolate 123,000 J 5700 J cholestanol PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254	phenol,2,4-bis(1,1-dimethyl)	Para Later L				
homosolate 123,000 J 5700 J cholestanol PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 115,400	ylangene			12,500 J		
PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 293,970 PCB-1254	homosolate				5700 J	
PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 293,970 PCB-1254	cholestanol					
PCB-1232 PCB-1242 PCB-1248 PCB-1254 293,970 PCB-1254	PCB-1016					
PCB-1242 PCB-1248 PCB-1254 293,970 PCB-1254	PCB-1221					
PCB-1248 293,970 PCB-1254 115,400						
PCB-1254						
PCB-1254						293,970
PCB-1260						
	PCB-1260	-				

All concentrations in ug/kg.

J = Estimated value.

M = Above the detection limit, but below the level of quantification.

TABLE 2 BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY NON-VOLATILE ORGANICS GC/MS SCAN JUNE 2, 1988

page 3a

Aqueous samples

` ` !		1	Dup.		1	1 .
PARAMETER/SAMPLE #	#112205	112206	112211	#112207	#112208	#112213
2-chlorophenol						
2-nitrophenol						
phenol	1.3 M		3.2 M		1.4 M	
2,4-dimethylphenol		7.3	11.2 M	0.2 M	6.2	
2,4-dichlorophenol	,	1		1.1 M		
2,4,6-trichlorophenol						
p-chloro-m-cresol						
2,4-dinitrophenol	1					
4,6-dinitro-o-cresol						
pentachlorophenol				**************************************		
4-nitrophenol	,					
1,3-dichlorobenzene	1.1 M	0.4 M				2610
1,4-dichlorobenzene	4.2 M	1.5 M		1.6 M		34,200
1,2-dichlorobenzene	1.2 M	1.6 M	1	0.2 M		167,140
hexachloroethane	· ·					1
hexachlorobutadiene						
1,2,4-trichlorobenzene	0.8 M	0.5 M			0.2 M	393
napthalene		11.7	14.7 M			28,380
bis(2-chloroethyl) ether						1
bis(2-chloroethoxy) methane		7				
isophorone		2.4			2.8	109
nitrobenzene						
acenaphthylene				· · · · · · · · · · · · · · · · · · ·	2.5 M	
acenapthene		1		,		137
fluorene		1.3 M	7.8 M		0.5 M	
hexachlorobenzene						
phenanthrene	0.3 M	2.7 M	18.7 M	0.2 M	2.8 M	115 M
anthracene					1.6 M	
fluoranthene		0.8 M		2.2 M	4.2	
aniline		1 2 2	1			
2-methyl napthalene	 	†	11.7 M		 	61,080 J
2-methyl phenol	0.8 M	20.1 J	18.5 M	·····		1 39,000
4-methyl phenol			8.0 M		1.9 M	
benzoic acid			54.3 M		6.2	
methylbenzene sulfonamide	179 J				75 J	
methyl ethylbenzene		25.3 J	 	,	 	

All concentrations in ug/1.

M = above the detection limit, but below the level of quantification

J = estimated value

TABLE 2 BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY NON-VOLATILE ORGANIC GC/MS SCAN JUNE 2, 1988

page 3b

Aqueous samples

				, L.		
PARAMETER/SAMPLE#	#112205	112206	Dup. 112211	#112207	#112208	#112213
dimethyl phthalate		0.4 M		"11220"	#112200	#.I.I.Z.Z.I.J
diethyl phthalate					 	
di-n-butyl phthlate		7.2				4
butyl benzyl phthalate	1.1 M	10.6 J	46.3J	7, -1 ,	7.1 M	
di-n-octyl phthalate		1.6 M		 	0.7 M	
bis(2-ethylhexyl) phthalate	1.4 M		106.8J	4.7 J	21.7 J	
pyrene		1.3 M		0.1 M	6.5	
chrysene	0.1 M	0.2 M			1.8 M	
1,2-benzanthracene		0.1 M			0.7 M	
4-chlorophenyl phenyl ether						
benzo(a) pyrene	0.2 M	0.2 M		,	2.8	
1,12-benzoperylene		0.5 M			4.3	
benzyl alcohol		5.3 J				
2-methyl alcohol						
dibenzofuran		0.8 M	2.0M		0.4 M	567
2,6 dinitrotoluene						
2,4-dinitrotoluene		0.6 M			-	597
1,2-diphenylhydrazine	1.7 M	2.0 M		0.1 M		26.8 M
3,4-benzofluoranthene		0.1 M			2.3 M	
11,12-benzofluoranthene		0.2 M			2.5 M	
n,n-dimethyl n,n-diphenyl urea	52 J					
trimethylbenzene isomers		58.4 J				
trimethyl-1,3 pentanediol		26.3 J				
n-ethyl-4-methylbenzene sulf.		39.3 J				
tetramethyl butylphenol					27 J	
methyl napthalene isomers		5.5 M			1.4 M	
ylangene						
homosolate						
cholestanol		96.6 J	712 J	71 J		
PCB-1016	-					
PCB-1221						
PCB-1232				······································	 	
PCB-1242				7.6.7		
PCB-1248						
PCB-1254	0.403					
PCB-1260						

All concentrations in ug/l.

J = Estimated value.

M = Above the detection limit, but below the level of quantification.

we3

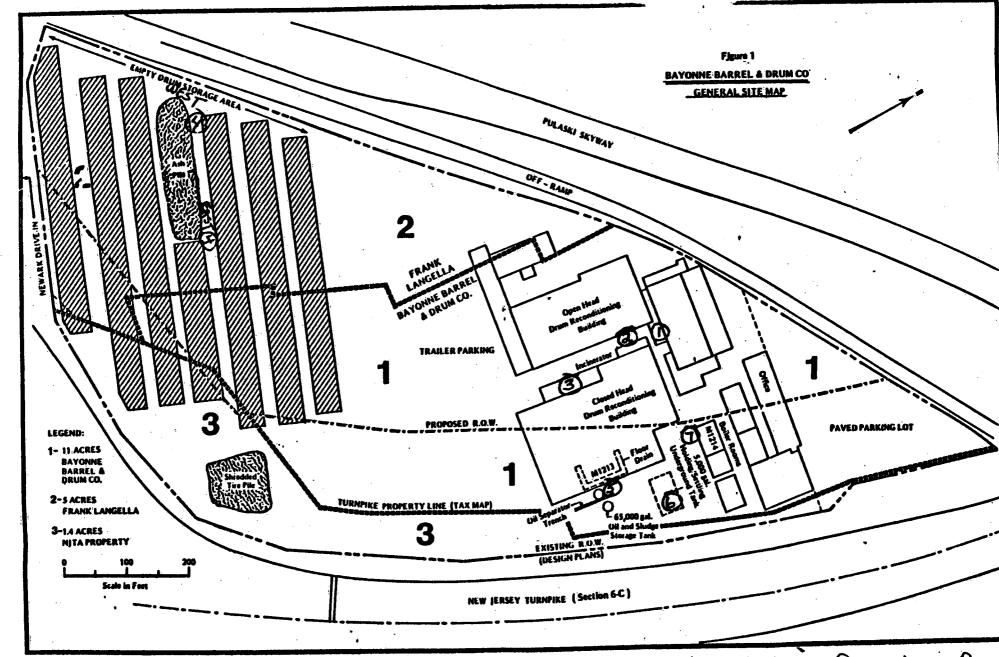
TABLE 3 BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY EP TOX METALS DATA JUNE 2, 1988

SAMPLE #/PARAMETER	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
#112201 (ash)		.01 M	2.84	1.16			4.72	.03 M
#112202 (ash)	.048M	.02 M	1.86	0.257			1.06	.02 M
#112203 (ash)		.04 M	3.53	2.84	.36 M	•15	1.69	•53
#112204 (ash)	\ <u></u>	.04 M	5.02	2.72		.0007 M	1.67	.04 M
#112205 (1iq)		.01 M	0.22M	.027M		.0002 M	.1 M	
#112206 (liq)	.012 M	.02 M	0.45M			.0003 M		.02 M
#112207 (liq)	.013 M	.01 M						.01 M
#112208 (liq)		.01 M	0.48M					.02 M
#112211 (liq)		.01 M	0.28M			.0003 M		.01 M
#112212 (ash)		.01 M	0.846M	.243			•57	.01 M
#112213 (liq)		1.0 M	.62M		1.6 M	.004 M		2.0 M
Maximum concentration allowed for EP TOX	 n 5.0	5.0	100	1.0	5.0	0.2	5.0	1.0

Sample #112211 was a duplicate to sample #112206.

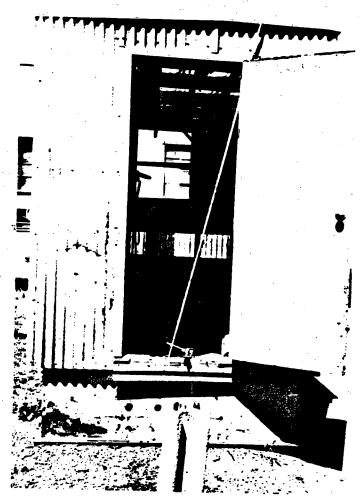
All concentrations expressed in mg/l.

M = above the detection limit, but below the level of quantification.



Sampling locations are approximate, as indicated by numbers in colored areas.

Map taken from Louis Berge and Assoc. report dated 12/86 for NJ Turnpike Auth.



#1. Pump house sampling location. Liquid samples collected at this location. See item #6 on attached site map.



#2. Underground tank, item #7
 on attached site map.
 Measuring total depth of
 tank.

BAYONNE BARREL AND DRUM Newark, N.J. June 2, 1988 NJD009871401



#3. Sampling underground tank.



#4. Collection of aqueous samples from courtyard area. Item #2 on attached site map.

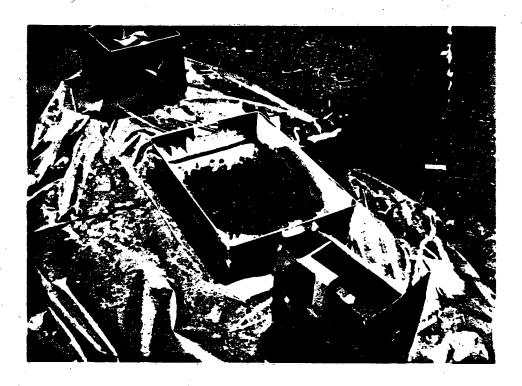


#5. Collection of random, grab composite ash sample from courtyard area.

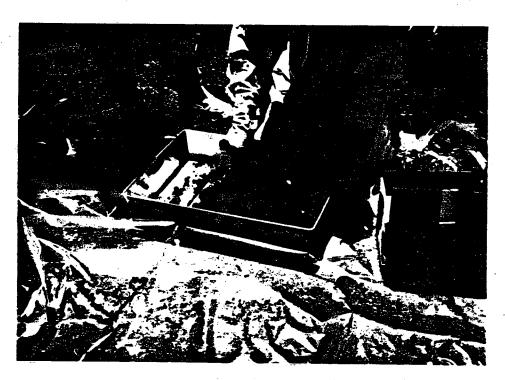


#6. Close-up of ash pile in courtyard, similar to photo #5.

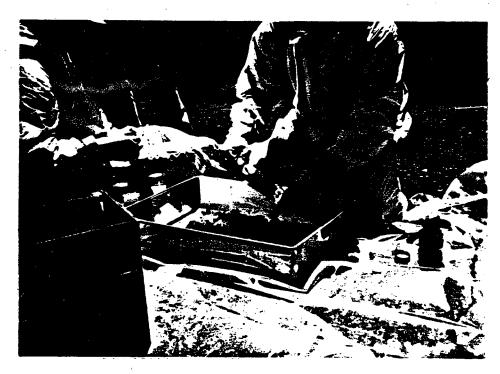
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#7. Ash from courtyard area ash pile, ready for compositing.



#8. Compositing ash sample from courtyard area, prior to filling sample containers.



#9. Filling POA vial with ash from courtyard area, item #2 on the attached site map.



#10. Furnace room building, item #1 on the attached site map. Combination ash/soil samples were collected at random from this location.



#11. Sampling "red" drum in the drum and ash storage room; item #3 on the attached site map.



#12. Overview of some of the many drums in the drum and ash storage room. Note condition of drums and old labels.



#13. "Red" drum which was sampled in the drum and ash storage room.



#14. Another view of drums in the drum and ash storage room.



#15. Sampling the ash pile in the drum and ash storage room. Note presence of drums in background.



#16. Opposite view of ash pile in drum and ash storage room.

EAST



#17. Waste ash pile, item #4 on the attached site map. An imaginary line was drawn through the ash pile to delineate an EAST and WEST half.



#18. Sampling East half of the ash pile.
Samples were collected at random and manually composited in a stainless steel tray.

BAYONNE BARREL AND DRUM Newark, N.J. June 2, 1988 NJD009871401



#19. Sampling West half of ash pile; item #4 on the attached site map.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION II

DATE:

August 19, 1988

SUBJECT:

Transmittal of RCRA Enforcement Inspection for Bayonne Barrel & Drum

FROM:

Michael Ferriola, Environmental Scientist Founda Source Monitoring Section Wichael Francoa

TO:

George Meyer, Chief Hazardous Waste Compliance Branch

Enclosed is a copy of the inspection report for the RCRA Enforcement Inspection conducted at Bayonne Barrel & Drum on June 2, 1988.

attachments

cc: Ted Gabel w/o attachments